St. Bartholomew's Hospital

"Æquam memento rebus in arduis
Servare mentem."
—*Horace*, Book ii, Ode iii.

Journal.

VOL. XXXIX.—No. 9.] JUNE 1ST, 1932. PRICE NINEPENCE.

CALENDAR.

Thurs., June 2.—Swimming Match *v.* Old Millhillians. Home.
Fri., ,, 3.—Medicine: Clinical Lecture by Sir Percival Hartley.
Sir P. Hartley and Mr. L. Bathe Rawling on duty.
Sat., ,, 4.—Tennis Match *v.* King's College Hospital. Away.
Mon., ,, 6.—Special subjects: Clinical Lecture by Mr. Bedford Russell.
Tues., ,, 7.—Sir Thomas Horder and Sir Charles Gordon-Watson on duty.
Wed., ,, 8.—Surgery: Clinical Lecture by Mr. Harold Wilson.
Thurs., ,, 9.—Swimming match *v.* Old Stortfordians. Home.
Fri., ,, 10.—Medicine: Clinical Lecture by Dr. A. E. Gow.
Dr. C. M. Hinds Howell and Mr. Harold Wilson on duty.
Sat., ,, 11.—Cricket and tennis matches: **Past *v.* Present.**
Mon., ,, 13.—Special subjects: Clinical Lecture by Mr. S. L. Higgs.
Swimming match *v.* National Provincial Bank. Away.
Tues., ,, 14.—Dr. A. E. Gow and Mr. Girling Ball on duty.
Wed., ,, 15.—Surgery: Clinical Lecture by Mr. L. Bathe Rawling.
Cricket match *v.* Guy's Hospital. Away.
Fri., ,, 17.—Medicine: Clinical Lecture by Dr. C. M. Hinds Howell.
Prof. Fraser and Prof. Gask on duty.
Sat., ,, 18.—Cricket match *v.* Old Paulines. Away.
Tennis match *v.* Royal Artillery (Woolwich). Away.
Mon., ,, 20.—**Last date for receiving matter for the July issue of the Journal.**
Special subjects: Clinical Lecture by Mr. Bedford Russell.
Tues., ,, 21.—Sir P. Hartley and Mr. L. Bathe Rawling on duty.
Wed., ,, 22.—Surgery: Clinical Lecture by Mr. L. Bathe Rawling.
Thurs., ,, 23.—Swimming match *v.* National Provincial Bank. Home.
Fri., ,, 24.—Medicine: Clinical Lecture by Dr. A. E. Gow.
Sir Thomas Horder and Sir Charles Gordon-Watson on duty.
Sat., ,, 25.—Cricket match *v.* Old Leysians. Away.
Tennis match *v.* Winchmore Hill. Home.
Mon., ,, 27.—Special subjects: Clinical Lecture by Mr. Elmslie.
Tues., ,, 28.—Dr. C. M. Hinds Howell and Mr. Harold Wilson on duty.
Wed., ,, 29.—Surgery: Clinical Lecture by Sir Charles Gordon-Watson. Cricket match *v.* King's College, London. Home.
Tennis match *v.* R.N.C. (Greenwich). Away.

EDITORIAL.

VIEW Day is a custom peculiar to our Hospital. It dates back to pre-Reformation times and possibly is coeval with the Hospital's foundation. The Hospital "Journals" go back as far as 1549, when View Day was apparently a well-established ceremony. At this time the Governors were summoned to be present at 6 a.m. on a March morning, and the round began with a religious service. In modern times the event takes place in the afternoon of the second Wednesday in May, and is not preceded by a service. The dinner in the Great Hall, the culminating event of the day, has been discontinued since 1900. The Head Porter, in his black gown, still heads the procession, bearing the staff with its silver globe and figure of St. Bartholomew holding a flaying knife The traditional questions are asked in every ward, and the answer is still the same The house-man has his annual opportunity of outshining his chief in magnificence, and may even be mistaken for him by admiring visitors.

This year there was the additional View Day ceremony of the opening of the Nigel Cohen Garden by Miss Peggy Salaman. This exquisite little garden is tucked away between the New Block and the Nurses' Library. It is possible that some of us have not yet seen it, or heard of it, so quietly did the construction and the opening take place. It is a fine memorial to Nigel Benjamin Cohen, whose death occurred through a flying accident last September.

* * *

The Women's Guild is to be congratulated on the results of the Fair and Jumble Sale last month. The net profits amount, we understand, to nearly £600. The organizers, among whom Mrs. Hinds Howell, Mrs. Elmslie and Mrs. Roberts played a prominent part,

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worked hard for this result. Those who visited the Great Hall on View Day to hear Ian Hay were not disappointed. We fully expected to find that, as a result of the Sale, the front square would be less tightly packed with vehicles in their various stages of dissolution. This has not been the case. It is rumoured that a census has been taken of these cars, and that a good many of them actually do belong to persons connected with the Hospital, but not all.

* * *

The Annual Sports took place on Saturday, May 28th, amid a steady downpour. Visitors were unfortunately few, but we were glad to welcome Sir Charles Gordon-Watson, Mr. Girling Ball, Mr. Hume, Mr. Bedford Russell and Mr. Just from among the Visiting Staff. In spite of the inclement weather, the competitors enjoyed themselves thoroughly, and put up a very good show.

* * *

The dinner of the 7th Decennial Contemporary Club will be held on July 6th at the Trocadero at 6.45 for 7.15 p.m. All who entered the Hospital between 1875 and 1885, and subsequently qualified, are eligible for membership of this Club, whose secretaries are Sir James Berry and Dr. Owen Lankester, 5, Upper Wimpole Street, W. 1.

* * *

The dinner of the 9th Decennial Contemporary Club will be held at the Langham Hotel on Wednesday, July 6th, at 7.30 p.m. The secretaries are Dr. Hinds Howell and Mr. Elmslie, 1A, Portland Place, W. 1.

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Dr. F. G. Chandler has been appointed representative of the Royal College of Physicians at the forthcoming centenary celebrations of the British Medical Association. We congratulate him on this honour, and we also congratulate Dr. Bernard Myers, who is President-Elect of the Clinical Section of the Royal Society of Medicine for the session 1932–33.

ACKNOWLEDGMENTS.

The British Journal of Nursing—The Nursing Times—Sydney University Medical Journal—Medical Times and Long Island Medical Journal—The Kenya and East African Medical Journal—Revue Belge des Sciences Médicales—L'Écho Médical du Nord—Bulletins et Mémoires de la Société de Médecine de Paris—The Caduceus—The General Practitioner of Australasia—The Queen's Medical Magazine—The Student—The Hospital—Clinical Journal—Magazine of the London Royal Free Hospital—The Guy's Hospital Gazette—St. George's Hospital Gazette—St. Thomas's Hospital Gazette—St. Mary's Hospital Gazette—University College Hospital Magazine—Charing Cross Hospital Gazette—Report of the Manchester Royal Infirmary—The University of Toronto Medical Journal—The Quarterly Journal of the Research Defence Society.

THE PRESENT POSITION OF PROSTATECTOMY.*

By Prof. HUGH CABOT, M.D., C.M.G., F.A.C.S.
Surgeon to the Mayo Clinic.

NEARLY six years ago I had the pleasure of speaking upon this same subject in this same place to a similar audience. I am hopeful that none of you have looked to see what I said at that time, and if you have, that you will not feel required to point out that I have changed my mind. The fact of the matter is that if I did not to-day point out to you that the situation was different from that which existed six years ago, only one of two conclusions could properly be drawn—either that no progress had been made, and consequently that the field had been neglected, or that I had entirely failed to appreciate what had taken place. Now it so happens that I believe that important changes have taken place, and that still more important changes are foreshadowed by developments which are, as yet, in their early stages.

It may perhaps be appropriate to spend a moment in reviewing the long and brilliant story of the development of prostatectomy. Without going too far back into the more or less accidental performance of prostatectomy, one may date the intentional operation for removal of obstruction from those put forward almost simultaneously by McGill in this country and Belfield in the United States. These were in the later 'eighties of the last century. They were not prostatectomies as we now think of them, and though performed by the suprapubic route, were only partial operations, and for this reason only partially successful. Their incomplete success led to the rise during the 'eighties and 'nineties of the last century of the operation of perinæal prostatectomy, in which the French school, typified perhaps by the work of Proust, played an important part. In America, Watson, Alexander, and at a later date, Young, made important contributions to this method of approach. Then at the beginning of the present century came the much more complete suprapubic operation, probably first done by Fuller of New York, but developed and popularized by Sir Peter Freyer. As a development or offshoot of suprapubic prostatectomy came the so-called two-stage suprapubic operation, intermittently done during the first ten years of the century, but perhaps first clearly and strongly advocated by Pilcher. This had for its purpose the division of the operation into two stages, the first of which provided adequate and, if necessary, prolonged

* A lecture delivered before the Medical College on April 18th.

drainage, and the second enucleated the prostate through the little, if at all, enlarged wound, and resulted in a considerable diminution in the mortality, particularly in the less favourable cases. Finally, bringing the matter fairly up to date, one should note the so-called one-stage open dissecting operation, first in the United States, clearly described and frequently done by Judd in 1914, and so fully developed and beautifully done by Sir John Thompson Walker and other British surgeons.

In this period of something like thirty years there have become established certain principles, and many of the earlier types of operation have entirely disappeared from present-day practice. Of these principles one may pick out the following:

(1) *Gradual decompression.*—It is generally accepted that the obstructed and over-distended bladder should be emptied gradually, thereby avoiding the accident of bleeding, but, as I think, more importantly the resulting acute fulminating infection, involving, if serious, the upper urinary tract.

(2) *Drainage.*—About thirty years ago the importance of preliminary drainage as a method of improving kidney function and stabilizing the conditions in the upper urinary tract was first clearly stated, and has become an established principle. It will be obvious that the duration of drainage will depend upon the evidence of derangement of kidney function, and the evidence of the ability of the patient to restore the function of the kidney to a reasonably satisfactory level.

(3) Finally, it has become clearly established that successful prostatectomy requires effective removal of the obstruction. This may seem elementary, but it must be recalled that the early operations of McGill and Belfield failed because they did not satisfactorily remove the obstruction, that the convincing success of the operation of Fuller and Freyer was due to the very complete removal of the enlarged portions of the prostate; and finally, that in those cases in which the prostate is small, fibrous or contracted, no methods of operation have been as satisfactory as in the cases where there was massive enlargement, and the obstructing tissue could be readily and certainly removed.

Bearing these principles in mind, one may dogmatize in regard to the present situation. Drainage may be established by one of two methods—either by the introduction of an inlying urethral catheter, or by suprapubic cystostomy. Urethral drainage is suited to those cases in which it need not be unduly prolonged—a period which may be set at two or possibly three weeks, and in which the catheter can be reasonably tolerated by the patient. Suprapubic drainage is suited to those cases where prolonged drainage, continued for from a few weeks to several or even many months, is indicated in order to stabilize function, and will also be required for those cases in whom the catheter for any reason becomes intolerable. If drainage can be satisfactorily carried out through the urethra we then have at our disposal, as I now believe, two methods of attack: we may either proceed by the now well-known and well-established one-stage suprapubic prostatectomy in which full exposure is obtained, the enlarged portion of the prostate is removed under sight and the bleeding is satisfactorily controlled; or we may apply a relatively recent, but as I believe, important new-comer in this field—a so-called transurethral prostatectomy. As I shall spend some time in discussing the details of this method later I will not go into it here. It will be noted that I have entirely discarded the operation of perinæal prostatectomy, though I am aware that it is still popular with many very able urologists in the United States, and do not doubt that it will continue to remain so for a considerable period. I have, however, come to the conclusion, which at this time I can only state dogmatically, that the newer operation of trans-urethral prostatectomy will finally push perinæal prostatectomy from the stage, and that it will do everything which this operation has done for us in the past in an equally satisfactory way and at a lesser risk. For that group of cases which has required prolonged suprapubic drainage we now have, as I think, two procedures at our disposal:

(1) The second stage of the so-called two-stage prostatectomy, which may be carried out through the suprapubic wound, during the earlier weeks without enlarging the wound, and later by moderate enlargement transversely in order to avoid possible injury to the peritoneum. This operation is, of necessity, a blind procedure, but has given very satisfactory results in the group of cases in which it has been required, and does not require niceties of exposure essential to the satisfactory control of bleeding in the one-stage operation, because the prolonged drainage will be found to have virtually eliminated serious bleeding from the list of possibilities.

(2) Transurethral prostatectomy: Growing experience has, I think, shown that a very considerable group of patients, for whom prolonged suprapubic drainage has been required, and for whom, at the time of instituting drainage, it seemed that suprapubic enucleation would be required, will be found after the lapse of many weeks or months with a prostate so shrunken as to come readily into the field admittedly appropriate for transurethral attack. For this group of cases perinæal prostatectomy has never appeared to find a large place, though I have never been quite sure why the enthusiastic advocates of the operation did not regard it as a

satisfactory procedure for removal of the obstruction, even though prolonged suprapubic drainage had been required in the interests of improved and stabilized kidney function.

It will thus appear that I am of the opinion that prostatectomy is rapidly being boiled down to three procedures: (1) drainage, (2) one-stage suprapubic prostatectomy or transurethral prostatectomy, and (3) two-stage prostatectomy, either suprapubic or transurethral. I need not burden you with further discussion of one-stage prostatectomy or two-stage suprapubic prostatectomy, since they are not new procedures, and have become thoroughly established in the surgical world. It does, I think, behove me to give some account of the latest candidate for favour—transurethral prostatectomy—in order to make it clear why I have given it such an important place in the field. We should perhaps date the beginning of the procedures which have led up to present transurethral prostatectomy to the introduction by Bottini in the 'eighties of the last century of his cautery knife for incising the bladder neck. With this instrument, introduced through the urethra, an incision was made through the bladder neck, and the obstructing tissue divided by means of an electrically heated blade. The operation was difficult of performance, was blind, and never became widely popular. The next important step in somewhat the same direction was the introduction by Young of Baltimore of his so-called prostatic punch—an instrument having a large window in its heel, and which can be introduced readily into the urethra by means of an obturator. This obturator having been withdrawn, a portion of the obstructing bladder neck then protruded into the window, and was cut away by a circular knife introduced in place of the obturator. This instrument was a very important advance, but as the procedure was not conducted under sight, the precise amount and relations of the tissue removed were doubtful, and in a varying but important number of cases troublesome bleeding occurred, which might even require suprapubic opening of the bladder for its satisfactory control. An important improvement upon this instrument was introduced by Caulk, who substituted a circular cautery knife for the cold knife of Young, and thus reduced to a minimum or even abolished troublesome bleeding. Except in the hands of its inventor, however, this instrument never enjoyed wide popularity, since the operation was necessarily a blind one, and the precise amount of heat developed by the knife was not easily regulated, so that there was danger of cauterizing the surrounding tissues if the heat was too great, or failing to control the bleeding satisfactorily if the heat was too little. However, the operations of Young and Caulk clearly prepared the field for the developments of recent years. In 1924 Stern, of New York made an important advance by developing an instrument resembling a cystoscope, by means of which the bladder neck was constantly under view, and through which the introduction of a wire loop, heated by a high-frequency current, could be manipulated in such a way as to pare away portions of the bladder neck. Stern did not succeed in developing this instrument to his entire satisfaction, and I believe later abandoned it, but it was pioneer work which has led to the development of a variety of instruments, in which the essential principle of complete visualization of the field and the removal of obstructing tissue by knives, wire loops or other forms of cutting blade have been developed. At the present time the operation is being done with a very considerable variety of instruments, utilizing these general principles. Among the instruments most employed and most successful at the present time may be named those of Davis, McCarthy and Bumpus. By means of all of these a complete view of the bladder neck is obtained, the obstructing tissue is accurately located and then accurately removed by methods which control the bleeding.

Coming now to the principles involved in this operation, it must be at once admitted that they revert to the earlier types of partial prostatectomy, and would seem thereby to expose themselves to the disasters which befell the operations of McGill and Belfield. On the other hand, it will be widely recognized that prostatic obstruction bears little or no relation to the size of the prostate, that very large prostates may produce no obstruction, whereas the most complete obstruction can be caused by glands which show no enlargement and may even be smaller than normal. We are thus forced to the conclusion that it is not the size of the prostate, but the position of the obstructing tissue which is important. The work of Young, Caulk and their modern successors appears to have demonstrated that the obstructing tissue is that which lies between the veru montanum in front and the inter-ureteric bar behind. The success which has apparently attended the transurethral operations which remove tissue in this location, suggests that the lateral lobes, which are commonly the most palpable and the most obvious, play a relatively small part in the obstruction, and there is at least a strong suggestion, which can develop into a certainty only with further experience, that even very considerable enlargement of the lateral lobes may be neglected if a clear channel is established through the region above mentioned. The operations with the instruments of Davis, McCarthy or Bumpus remove the tissue in relatively small pieces, but particularly with

the instrument of Bumpus the tissue is not destroyed by electro-coagulation, and can thus be submitted to pathological examination, which is occasionally important in the discovery of early cases of malignant disease. Davis, whose experience is perhaps the largest, removes large quantities of tissue, and does not hesitate to devote considerable time, amounting occasionally to one or even two hours, to the procedure. Bumpus, on the other hand, is satisfied with removal of somewhat less tissue, and his operations are of much less duration. In the cases operated by Bumpus and his colleagues at the Mayo Clinic the average weight of tissue removed is about 5 grm., the extremes being 20 grm. and 1 grm.

Having thus briefly described the nature of the operation, it is proper to inquire upon what authority it has intruded itself into the field, and what are its present limitations. The best evidence of its right to be considered a very important procedure appears to me to rest upon the experience of Caulk, with his, as I think, less satisfactory apparatus, but with an experience going back over fifteen years, and more recently upon the work of many urologists other than those above mentioned, who, together, have presented for our consideration a large group of patients showing satisfactory results over periods varying up to as much as ten years. Their accumulated experience appears to me to show conclusively that operations done in this way do in fact satisfactorily remove obstruction. The next important considerations are those of the operative risk and the duration of hospital confinement. There are enthusiastic advocates of the operation who express the opinion that there is no mortality properly attributable to the operation. Our experience at the Mayo Clinic, which now runs to about 250 cases, does not appear to me to justify such great optimism. Our mortality from all causes during a period of six weeks from the operation is somewhat under 3%, and it does not seem to me likely that in any large series of cases a much lower mortality will be obtainable. In any operation done upon patients in this age-group, it does not seem to me helpful to attempt to exclude from mortality statistics patients alleged to have died from vascular accident or of intercurrent pneumonia, thought not to be connected with the operation itself. It appears to me wiser to credit ourselves with all of this mortality on the general ground that the patients probably would not have died if no operation had been undertaken. Moreover, I do not think that it is helpful to paint the lily, and if this method of operation will in fact relieve the obstruction at an operative risk between 2 and 3%, it will achieve better results than have yet been forthcoming from any other operation for prostatectomy. Perhaps one of the greatest advantages claimed, and I think substantiated, from this operation is the relatively brief confinement as compared with any other method. At best the perinæal operation confined patients for a period of three to four weeks, not including the period of drainage. For the suprapubic operation a somewhat longer period was generally necessary. The transurethral operation can be expected to require confinement varying from three or four days to two weeks at the maximum, and averaging between seven and ten days. At the end of this period the patients are up and about, completely emptying their bladders, and in a condition safely to leave the hospital and perhaps even the immediate care of the surgeon. This is a very great improvement over other methods, and deserves being marked up to the credit of the procedure.

It will doubtless be objected that as only a relatively small amount of tissue is removed recurrence will be more likely. To this one can only reply that recurrence has not been unknown after relatively complete operations by the suprapubic or the perinæal route, though it must be admitted that such recurrences were relatively uncommon. It is true that at the present time there is no commanding array of patients treated by this method more than five years ago from whom conclusions can be drawn. There are, however, a considerable number over five years, some even more than ten years, in whom recurrence has not taken place. Furthermore, it is not inconceivable that an operation of relatively trivial risk might properly be repeated after a lapse of four or five years, and the patient yet be better off than had he been forced to withstand the fundamental disturbance of a more serious operation.

The field of application of transurethral prostatectomy.—It is proper, I think, in conclusion that I should state to you my own view as to the proportion of cases of obstructing prostate which may properly be treated by this method. It will generally be admitted that the operation is most obviously suited to patients with small glandular hypertrophies, and in general to the smaller types of obstruction. I am still doubtful whether the operation can be satisfactorily applied to patients with very great enlargement of the comissural subcervical glandular structures—in general the group commonly referred to as median lobe enlargement. Some of these enlargements reach very great size, project backward, entirely covering the trigone and in some cases being more or less pedunculated. For this group I have hesitated to advise transurethral prostatectomy, though I am aware that it has been successfully employed in such cases. For the present at least I should prefer for these patients the suprapubic

method of attack. I am also hesitant in regard to patients with large lateral lobes, which have herniated backward through the vesical sphincter and come to lie in an obstructing position in the mid-line. The transurethral approach seems to me considerably handicapped in dealing with this group. Here suprapubic prostatectomy is at its best, and I think further experience, at least, is required before admitting that the lesser procedure will produce wholly satisfactory results. For the moderate enlargements such as would be classified as one and two on a scale of four, I am satisfied that the transurethral attack is well suited and has demonstrated satisfactory results. At the present time at the Mayo Clinic something like half of the cases of prostatic obstruction appear to us wholly suited to this method, and I observe that the percentage which we regard as suitable has steadily increased during the last two years.

Briefly stated, then, my opinion is this. I will not, at the moment, go " sled-length " with the enthusiasts who take the view that any obstructing prostate can be satisfactorily dealt with in this fashion. I shrewdly suspect that with growing experience and with the inevitable improvements of technique something like three-quarters of the cases will, within the next few years, come properly within the field of this operation. It will be observed that it is equally applicable to the patient who requires but little urethral drainage and to the patient who has required prolonged suprapubic drainage, that it carries beyond question the lowest mortality of any of the modern operations, and that it appears to give satisfactorily permanent results.

THE CAUSATION AND PREVENTION OF CHRONIC EMPYEMAS.

AN empyema becomes chronic when the cavity persists for an abnormal length of time after the original drainage. It may either be draining more or less completely through the opening in the chest-wall, or the opening having been allowed to heal, pus has reaccumulated in the cavity.

A chronic empyema rarely occurs if the original acute empyema has been treated properly. There are many different opinions as to the proper treatment for an acute empyema, but little difference in the final result if three main principles are observed, namely, drainage at the correct time, at the correct place, and continued until the cavity is completely obliterated.

As to the *correct time*, drainage should never be performed during the acute pneumonic process, but delayed until the pleural adhesions round the margins of the empyema are sufficiently strong to prevent collapse of the whole lung and a shift of the mediastinum when the chest is opened. Drainage performed too early may cause the death of the patient, but, on the other hand, if delayed too long there will be a thick fibrous deposit on the visceral pleura which will hamper the lung in its expansion. The optimum time can be estimated from a sample of pleural fluid after it has stood in a test-tube for twenty-four hours, the pus will settle to the bottom, leaving the serum above, and when there is 75 to 80% of pus, open drainage may be performed with safety. Closed intercostal drainage is employed in infants and, very occasionally, in syn-pneumonic empyemas, but is unsatisfactory for the ordinary meta-pneumonic empyemas.

The *correct place* for the drainage opening is on a level with the bottom of the cavity, so that when the patient is sitting or standing upright, no pus can collect. This site is found by aspiration at several different points. It must be remembered, however, that a large basal empyema depresses the diaphragm; after drainage this rises and the costo-phrenic sinus tends to be obliterated, so that the ninth rib laterally, or the tenth rib posteriorly, are usually the lowest limits for resection.

By far the commonest cause of a chronic empyema is the removal of the drainage-tube before the cavity is obliterated.

If the tube is removed while the cavity is still discharging pus, the opening in the chest-wall, although reduced to a pinhole, is kept open by the pressure of the pus in the chest; if, on the other hand, the tube is not removed until the cavity is " clean," the opening in the chest-wall closes rapidly. What happens to the cavity after closure of the drainage opening must depend on the number and virulence of any remaining organisms and the resistance of the host. In the majority of cases the tissues are able to deal with the infection, the lung gradually expands and the cavity is obliterated by firm fibrous union between the two pleural surfaces. But in others a small pocket or chink is left that contains micro-organisms, and sooner or later these get the upper hand, pus accumulates and distends the cavity and the patient becomes ill again; the empyema then either ruptures spontaneously through the old site of drainage, or is redrained by operation. Too often the doctor, not appreciating what has happened, again removes the tubes early; the same story is then repeated time and time again, and in the meanwhile the lung is becoming imprisoned by a thicker and thicker layer of fibrous tissue, so that closure of the cavity becomes impossible without an extensive operation. It is surprising how

long an interval of apparently normal health can intervene before these empyemas recur. I have known cases go from ten to fifteen years, and then get a recurrence at the site of the previous empyema; this would be impossible, I think, if the original empyema had been completely healed.

There are three *simple methods of examining an empyema cavity* to find out its size, and to know when it is obliterated, viz.: (*a*) The introduction of a finger through the drainage opening; (*b*) probing the cavity through the drainage opening with a uterine sound, soft metal gall-stone probe or urethral bougie; (*c*) measuring the capacity with fluid as follows: The patient lies down so that the opening is the highest point of the cavity, and fluid is then slowly introduced with a graduated syringe; this method cannot be carried out so long as there is a broncho-pleural fistula.

The drainage-tube should have its inner end just inside the cavity, and be fixed in that position by a safety-pin and adhesive strapping on to the chest-wall, so that it will not slip in or out. It is unnecessary to take the tube out more than once a week, and instead of daily irrigations (mechanical lavage), it is preferable to lie the patient down and then fill the cavity with Dakin's solution and leave the patient in that position for fifteen minutes. When the cavity is clean and its capacity is under 25 c.c. the size of the drainage-tube is reduced, and finally a small soft capillary tube remains until the last traces of the cavity are obliterated. In the ordinary course of events an empyema should be completely healed in four to six weeks.

The longer the walls of an empyema cavity are bathed in pus, the thicker becomes the fibrous deposit on the visceral pleura, and therefore after drainage, *the quicker the infection can be cleared up the better* is the chance of an early expansion of the lung. There are several points to be noted in this connection: (*a*) The removal at the time of operation of all fibrin lying loose in the cavity or adherent to its walls. (*b*) The avoidance of a puddle of pus at the bottom of the cavity by having the drainage opening at the lowest point. (*c*) The avoidance of a long drainage-tube projecting up into the cavity so that pus can only escape by overflow, which state of affairs is indicated if a stream of pus escapes when the tube is withdrawn. (*d*) The use of Dakin's solution, which assists in clearing up the infection: this, however, is less important than the other three points, and sometimes cannot be used on account of a broncho-pleural fistula.

As an empyema heals by the lung expanding to fill the cavity, this will depend on the state of the visceral pleura and condition of the underlying lung. *Factors delaying expansion* are: (*a*) A thickened visceral pleura; the cause of this has already been dealt with above. (*b*) A broncho-pleural fistula, which is often present during the first two or three weeks after drainage, and is of no serious consequence unless it persists, when there must be some infection, such as an abscess or tuberculosis in the underlying lung. A fistula prevents expansion, as the inspired air escapes out of the opening instead of distending the lung. Forced expiration by blowing up balloons, air-rings or water from one bottle into another is a very helpful adjunct in assisting the normal lung to expand, but as long as a fistula is present, it is ineffective, and tends to prevent it from healing. (*c*) Fibrosis of the lung as the result of suppurative pneumonitis would, if extensive, prevent healing, but it is very rarely that the non-expansion of the lung can be traced to this factor, except, of course, in tuberculosis, where it is the main cause.

A foreign body in an empyema may prevent it from healing, or it may appear to heal, only to break down again at some later date. Once when draining an empyema at the Ministry of Pensions Hospital, Roehampton, I explored the cavity as usual with my finger, and found a large piece of shrapnel which had lain there without causing symptoms for fifteen years. In another soldier who had had recurrences of his empyema for many years, we found a piece of rubber tubing, and in this case as a result of the prolonged suppuration the pleura was 2 in. thick. The danger of a drainage-tube falling into the cavity and being overlooked is prevented if there is a safety-pin through the extra-thoracic portion of the tube, and also if the same person does the dressing every day. Another type of foreign body is a small piece of dead bone which is the result of osteomyelitis in the cut ends of the rib, the sequestrum having fallen into the cavity. These are rarely seen on an X-ray, and are not discovered until the cavity is re-explored. The chance of osteomyelitis of the rib ends is minimized by only stripping the periosteum off that portion of the rib which is to be resected, and cutting the rib cleanly across with sharp forceps rather than splintering it with a blunt instrument. Infection of the rib is more often a cause of persistent sinus than chronic empyema.

Finally there is a group of causes quite unavoidable by the surgeon that lie in *the nature of the infecting organism, or an abnormal ætiology* which may have been unsuspected at the time of drainage. A secondarily infected tuberculous effusion or empyema is not readily distinguished from an ordinary pyogenic one unless there is a previous history that throws light on the diagnosis. These are drained, quite correctly, by open operation, and it is only when the lung fails to expand that the underlying tuberculous infection is

suspected. If the diagnosis is in doubt at the time of drainage, a biopsy should be taken from the parietal pleura, or if after drainage, some granulation-tissue can be removed from the cavity with a curette. Sections are cut from one piece, while the rest is ground into an emulsion and injected into a guinea-pig. Actinomycosis occasionally causes an empyema, and in bronchial carcinoma an empyema develops in 10% of cases. In both of these conditions the pus must be drained, but unless they have been fully investigated beforehand, the underlying cause will not be discovered until the time of operation or later.

During the first four months of this year Mr. Roberts and I have drained twelve empyemas at the Hospital. Eight of these have healed completely in an average time of 5½ weeks, the quickest being 30 and the longest 44 days. There have been no deaths, but four cases are still under observation. The history of these four cases is, briefly, as follows:

1. Is a young woman who had two loculated empyemas on the same side, one of these being a large apical collection. The operation was performed 5½ months ago, the lung at the apex expanded very slowly, but she is now out of hospital and is very well. She has a sinus 2½ in. long with no discharge, but on account of this she is being kept under observation.

2. Is a middle-aged woman whose empyema was drained 7½ weeks ago. She now has a sinus 3½ in. long, which is still, however, discharging pus. The cause of the chronicity is obscure, and we have advised exploration, as there may possibly be a foreign body such as a piece of dead rib at the bottom of the trouble.

3. Is a young man whose empyema was drained 9 weeks ago. He still has a drainage-tube, but practically no discharge, and is now at the seaside; but when he left hospital he still had an empyema cavity. On his return if he still has an intra-thoracic cavity we shall advise exploration.

4. Is a young man who was drained 5 weeks ago. He still has a tube, but practically no discharge, and there has been very little expansion in the lung, the capacity of the cavity being between 400 and 500 c.c. The history and the X-ray appearance in this case make it almost certain that he has a secondarily infected tuberculous empyema. His general health has, however, continued to improve, and he is about to go to a convalescent home.

If an ordinary empyema is still discharging pus after three weeks, and is not healed at the end of six, investigation should be carried out to find the reason for this delay. The history should be reviewed for a possible unsuspected ætiology, such as tubercle or growth. The drainage-tube and cavity should be examined to see that the drainage is satisfactory, the size and capacity of the remaining cavity should be measured, and the inside of the cavity may even be inspected with a cystoscope or bronchoscope. Some of the granulated tissue lining the cavity should be removed with a curette for investigation. X-rays are employed to show the state of the lung parenchyma, to exclude a loculated collection of pus, and confirm the clinical observations as to the site of drainage and size of the cavity. The cavity can be best demonstrated by filling it with an opaque medium, and then taking antero-posterior and lateral films. Lipiodol or barium emulsion are the usual substances, the cavity being filled with the patient lying down, and the opening is then plugged with gauze to prevent its escape. If a fistula is present the lipiodol is injected into a long piece of fine rubber tubing, which is then pushed into the cavity, where it coils round the walls.

Of all the methods of investigation operative exploration under an anæsthetic is by far the most satisfactory. The cause may then be directly dealt with, and if feasible, the thickened visceral pleura can be removed by the operation of decortication, so as to permit expansion of the lung.

To summarize the causes of chronic empyema:

1. Removal of the drainage-tube before the cavity is completely obliterated.
2. Persistence of the infection.
   - (*a*) Failure to remove the fibrin at the time of operation.
   - (*b*) Drainage opening not at the bottom of the cavity.
   - (*c*) Drainage-tube too long.
3. Delayed expansion of the lung:
   - (*a*) Thick visceral pleura due to 2.
   - (*b*) Broncho-pleural fistula.
   - (*c*) Fibrosis of the lung.
4. Foreign body.
5. Tuberculosis, actinomycosis or growth.

H. P. NELSON.

SOME POINTS IN THE TECHNIQUE OF SUBCUTANEOUS INJECTIONS.

SINCE the discovery of insulin a large and continually growing number of people give themselves subcutaneous injections. When a patient has to do injections twice a day, he soon learns to hurt himself as little as possible.

1. The amount of pain caused by the injection can be much reduced if all the movements are done slowly. A jab always causes pain. The point of the needle should be placed on the skin, and then pushed firmly but slowly through the subcutaneous tissues about a quarter of an inch deep. Some patients can tell whether any particular points on the skin are tender, and always avoid these. The angle which the needle should make with the skin is about 30°.

If the needle is pushed through slowly, the operator can tell by the resistance of the skin whether the point

of the needle is blunt or sharp. If the injection is done quickly the operator cannot tell, but the patient always knows.

2. It is the custom of many doctors and nurses, after they have given the injection, to rub firmly the site with cotton-wool for ten to thirty seconds. This is presumably done to render the absorption of the substance injected more rapid. The diabetic rarely does this because the site of the injection, which is distended with 0·5 to 1 c.c. of fluid, is tender, and firm pressure will cause pain. There is no need to rub the tender spot, because the absorption of insulin is rapid enough to lower the blood-sugar slightly within thirty minutes. An intravenous injection should be given if a rapid effect is desired. Some patients do prefer to rub the site of injection gently as it relieves a slight itching.

3. The patient occasionally finds that a drop of blood appears when the needle is withdrawn. The bleeding will stop with light pressure, but a bruise may appear in the subcutaneous tissues. The bleeding may occur because a small vein has been transfixed, and if this is so no other symptoms will occur. Sometimes, however, the point of the needle will stay in the lumen of the vein, and the injection will be given into the blood-stream. If this happens the blood-sugar will decrease much more rapidly than usual. As a rule no untoward effects occur, because the carbohydrate of the next meal raises the blood-sugar sufficiently to prevent the onset of the symptoms of hypoglycæmia. But a severe hypoglycæmia may occur occasionally in the interval between the injection and breakfast, and may cause great alarm to the patient's attendants, and even risk to life. This is especially liable to occur where the interval between the dose of insulin and the meal is an hour, as is sometimes necessary in order to prevent the blood-sugar rising too rapidly after breakfast.

An intravenous injection of adrenalin is much more dangerous, as the tachycardia produced may be very great, and the auricles may actually fibrillate for a few minutes. If the patient is quite healthy, the tachycardia, pallor and faintness soon pass off without leaving any ill-effects, but if the patient has a damaged heart the results may be serious. Sudden death has occurred after even a small dose (5 minims) of adrenalin, and it is possible that this was due to the adrenalin having been given intravenously. The risk can be easily avoided by the following procedure: the plunger of the syringe is slightly withdrawn before the injection is given. If any blood enters the syringe, the syringe must be slightly withdrawn and the same test with the plunger applied. It is suggested that this technique should be adopted as a routine for all subcutaneous injections. It is simpler to do this than to have to remember in each individual case that an intravenous injection of the drug in question may cause harm.

4. The needle should never be plunged in up to the hilt. If a needle breaks, it does so as a rule at the hilt, and it is important to leave a piece of needle, say an eighth of an inch, sticking out, so that the needle can be easily withdrawn. Edward Lear has summed up the situation for another kind of needle very aptly:

> "There was a young lady of Cheadle,
> Who sat down in church on a needle.
> There being some thread
> Attached to the head,
> It was promptly pulled out by the beadle."

5. The syringe should be kept ready for use, with the needle attached. It is unnecessary to pass a wire through the needle if it is being used every day, as the point will have become blunt long before the needle is blocked by rust. The syringe should be kept either in a metal or glass tube filled with disinfectant. Stainless steel needles can be kept in industrial spirit, but ordinary steel needles should be kept in a mixture of lysol and methylated spirit, ʒj to the pint. The disinfectant in either case should be washed out in three to six changes of boiled water or saline. The total amount of time which would be saved during the day, if syringes were always kept ready for use instead of disconnected, would be considerable.

GEORGE GRAHAM.

INFECTIONS OF THE TERMINAL PHALANX.

IN these days of national economy it is appalling to think how large a number of days of employment is lost to our struggling industry and declining commerce by such a seemingly trivial and unimportant complaint as "only a septic finger"—a pernicious phrase, because it encourages slovenly diagnosis, and it is upon accurate anatomical diagnosis that good treatment and rapid and full recovery depend.

That facts, though well known, are so frequently lost sight of is, I think, sufficient justification for offering for publication these notes on common infections of the terminal phalanx.

Anatomy.

To make an accurate diagnosis we must understand the anatomy of the part, and accordingly we begin with a brief account of the anatomy of the terminal phalanx, to make clearer the diagrams given. The nail represents

the stratum lucidum of the skin, and it grows in length from the stratum mucosum at its root, and in thickness from that part of the stratum mucosum which lies under the lunula. Except at its free margin the edges of the nail narrow and pass under the skin, which is reflected over it. At the base the sulcus is deep, and the overlying thinned-out skin is called the eponychium. The connective tissue between the nail and the bone is richly supplied with blood-vessels — the subungual

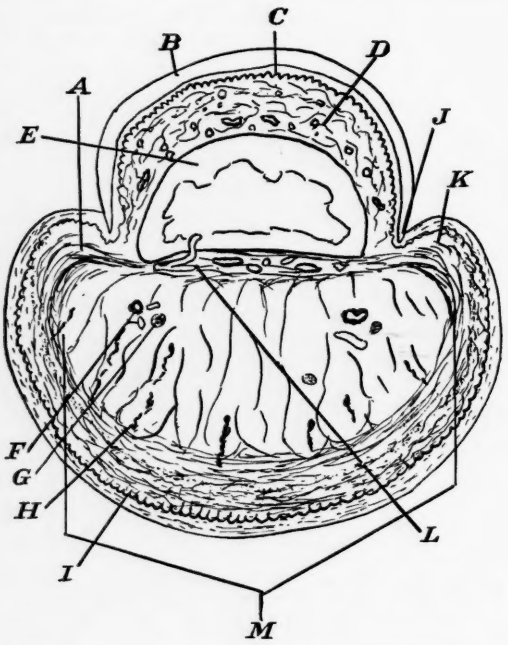

FIG. 1.—DIAGRAM OF A TRANSVERSE SECTION THROUGH THE TERMINAL PHALANX.

A. Paronychium and subungual space shut off from the pulp by thickened fibrous tissue. B. Nail. C. Nail bed. D. Subungual plexus. E. Shaft of the terminal phalanx. F. Digital vessels. G. Digital nerve. H. Sweat-gland. I. Thick epidermis with thick dermis underneath. J. Tapering edge of the nail lying in the nail sulcus. K. Paronychium. L. Vascular anastomosis, showing a branch entering a nutrient foramen. M. Distal anterior closed space.

plexus. The primary centre of the diaphysis of the phalanx appears at the eighth week, and the epiphysial centre appears at the sixteenth year—they unite at nineteen. To the dorsum near the base is attached the extensor tendon, which acts as the posterior ligament to the joint. There are strong lateral ligaments, and a fibrocartilaginous thickening of the capsule forms the anterior ligament. Passing over this and fusing with the periosteum of the palmar aspect of the phalanx is the flexor profundus tendon, whose sheath ends short of the joint at a point marked on the surface by the distal flexion crease. Here the tendon sheath lies unprotected, close beneath the surface, and is easily damaged by accident, or by the use of a median incision to open the finger pulp. The distal part of the shaft of the phalanx has on its palmar surface a roughened raised area. The whole shaft, and particularly this area, is pierced by many relatively large nutrient foramina which admit the branches of the digital arteries. The epiphysis is supplied from the digital arteries by branches which are given off before they enter the distal anterior closed space. The distal anterior closed space is a closed fibrous sac, lying between the anterior surface of the terminal phalanx and the skin from the distal flexion crease to the tip of the finger. From its outer boundaries septa of fibrous tissue extend inwards to the bone, blend intimately with the periosteum, and pass into the bone as Sharpey's fibres. Thus the periosteum here is difficult to distinguish, especially over the raised roughened area. Into the fat lying between the septa of fibrous tissue sweat-glands penetrate deeply and may be seen lying adjacent to the bone. The space has running through it the terminal branches of the digital nerves and the digital vessels of supply to the diaphysis. At the very extremity of the finger the skin is loosely attached to the tip of the phalanx by fibrous tissue.

Acute Infections of the Palmar Surface.

Some slight superficial damage to the skin of the pulp of the finger may lead to the formation of a purulent blister or subepidermal abscess, and this, if opened by cutting away the whole of its skin covering and dressed with some such antiseptic as flavine, will allow the finger to be used normally in a few days, but infection may spread into the deeper tissues by the lymphatics or the sweat-glands and enter the distal anterior closed space—the finger pulp. On cutting away the coverings of a supepidermal abscess there may be seen in its floor an opening through which escapes pus or serum from the deeper tissues. Here we have an abscess in two parts: one subepidermal and one in the deeper tissues. It is important to recognize this, for, while treating the superficial, the deeper and more serious lesion may remain neglected. These dumb-bell or collar-stud abscesses are commonly seen in the hand on the palmar surface where the epidermis is very thick.

If, however, the original wound penetrates deeply enough we will find an infection of the finger-pulp without the antecedent blister, but it is to be remembered that finger-pulp infections may occur without any history of a wound of any kind.

Pathology.—As the inflammatory process continues the tension in the finger-pulp rises, the blood supplied through the arteries in the space to the diaphysis of the phalanx is cut off and the bone dies. Or it may be that the death of the diaphysis is due to an infective osteomyelitis produced by the infection in the pulp passing easily into the medullary cavity of the bone through the numerous large nutrient foramina. Necrosis does not occur after crushing injuries; here the tension in the pulp is much increased by the œdema caused by the injury, and not by infection. This, therefore, suggests that the ischæmic theory is probably incorrect, and that infection plays the major part in the production of necrosis of the bone. That the epiphysis often escapes may be due to the fact that its artery enters from outside the distal anterior closed space, and so escapes both pressure and the infected area.

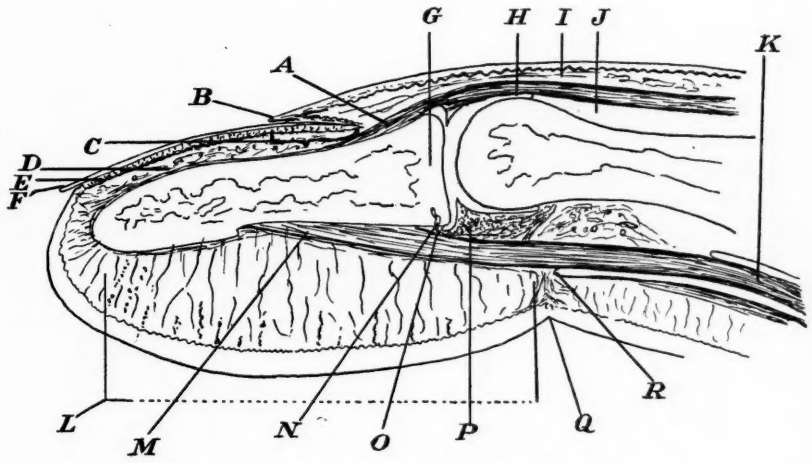

FIG. 2.—DIAGRAM OF A LONGITUDINAL SECTION THROUGH THE TERMINAL PHALANX.

A. Insertion of the extensor tendon. B. Eponychium. C. The nail matrix lying under the tapering end of the nail. D. Subungual plexus. E. Nail bed. F. Nail. G. Distal phalanx (epiphysis). H. The proximal posterior reflexion of the synovial membrane of the joint. I. The dorsal subcutaneous space. J. Dorsal subtendinous space. K. The flexor tendon. L. The distal anterior closed space. M. Insertion of the flexor tendon. N. Separate artery entering the epiphysis. O. Small subtendinous space accommodating the reflexion of the synovial membrane of the joint. P. The anterior ligament. Q. The distal flexion crease. R. The distal and anterior extremity of the flexor tendon sheath.

Clinically we find that, a day or even as much as a week after an injury to the finger tenderness increases, and is followed by a pricking sensation and later an aching pain, which soon develops an intense bursting and throbbing character. At first tenderness is the only sign; then the finger becomes red, and as the pain is at its height there is a certain pallor in the centre of the pulp. It is swollen, indurated, and exquisitely tender. If left untreated the pain abates, and fluctuation appears with the formation of pus, and, as we shall see later, destruction of the fibrous trabeculæ of the pulp, and, very probably, death of the bone. The condition has to be distinguished from a commencing lymphangitis, burns and bruises; if there is a subepidermal abscess, it is to be determined whether a pulp infection is present as well.

The treatment consists in early drainage, rest and antiseptic dressing. If the diagnosis is in doubt it is better to drain. Less harm is done by incising an uninfected finger than by neglecting an infected one. The procedure we adopted was to open all these infections under general anæsthesia in a bloodless field; to drain the pulp space incisions were made at the side of the finger from a point a quarter of an inch distal to the flexion crease to within a quarter of an inch or less of the tip, at the level of the palmar surface of the bone, and a strip of thin rubber was passed between them. A dressing of gauze soaked in hot, saturated boracic acid solution was applied, the arm put in a sling, the patient kept away from work and advised to rest at home, and to adopt general treatment for infection as regards nutrition, bowels, etc. Next day the rubber drainage was removed and a hot dressing reapplied. On subsequent days watery flavine dressings were used. The arm was kept in a sling until healing was almost complete. It was found that in early and uncomplicated cases the pain was greatly relieved immediately after

the operation, and had disappeared by the third or fourth day, leaving the finger fit for duty at the end of the second week.

The disadvantages of the incision described is that occasionally the drainage it provides is inadequate, although more so than in any unilateral incision, and usually as adequate as that given by the horseshoe incision recommended by Fifield. Fifield's incision gives the best drainage at the expense of a scar at the tip of the finger which, if healing is delayed, may produce troublesome deformity. Neither of these incisions causes damage to the nerves, and after healing sensation is unimpaired. A median incision gives bad drainage, as it passes along one trabecula rather than across all the trabeculæ of the finger pulp. It may by extending too far proximally open and infect the flexor tendon sheath. It gives a bad scar and should not be used.

On making the incision in an early case no pus will be found, but only a serous inflammatory exudate. In older cases pus may have formed, and if incision has been long delayed the tissues of the pulp will be replaced by pus and the diaphysis will be bare and occasionally lying free in the abscess cavity, especially in children in whom the epiphysis has not yet united.

Chronic Infection of the Palmar Surface.

The finger, even if treated early, may not heal, and we are left with the "chronic septic finger." We may classify chronic pyogenic infections of the finger resulting from a primary palmar infection into two groups—those without and those with necrosis of bone.

Clinically the first type, without necrosis of bone, may be called drumstick fingers, there is little or no pain, the whole terminal phalanx is swollen and œdematous, granulations are pale, the finger is tender, the dorsal surface is secondarily involved and the nail has usually been removed, but the X-ray examination shows no bony change, other than generalized rarefaction of the terminal phalanx. The condition is usually associated with deterioration in general health, and appears to be due chiefly to prolonged treatment by moist heat, especially fomentations in which some waterproof material, such as jaconette, is applied under the wool "to keep the heat in." The jaconette may or may not keep the temperature higher for a few moments longer, but it will hinder the evaporation of moisture and cause a bogginess of the fomented part delaying resolution. Much the same effect is produced by the persistent use of a vaseline or liquid paraffin dressing. *The treatment* of this type of infection consists in applying dry or spirit dressings, and dry heat. The heat is best supplied by exposing the finger to the radiant heat from a 16 candle-power carbon filament lamp at a distance of 4 to 6 in. from half an hour to an hour two or three times a day.

The second type is commoner. Bone necrosis is present, and clearly it is a more intractable condition, and one into which the first is liable to progress. Here we have a finger chronically inflamed, in which there is a sinus leading to the bone. A sinus in the terminal phalanx almost invariably leads to bare bone. An X-ray photograph will usually show a localized area of rarefaction, or a sequestrum, but there are some cases in which a sinus leading to bone has been present for some months with no definite X-ray change to be seen.

FIG. 3.—THE DOTTED LINES SHOW THE INCISIONS MADE FOR REMOVING THE NAIL.

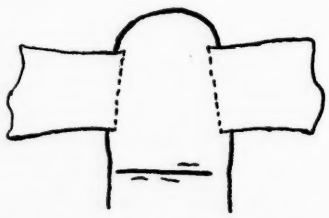

FIG. 4.—SHOWING THE METHOD OF DRAINING THE PULP BY TWO TRANSVERSE INCISIONS THROUGH WHICH IS PASSED A RUBBER STRIP.

The treatment may be considered under two headings—conservative and operative. The conservative treatment is similar to that advised for the first group. The radiant heat may be used for longer periods and more frequently. Operative treatment is advised if there is any dead bone. It should be removed with as little damage to surrounding tissues as possible. Even if no dead bone is seen in the X-ray photograph and the finger is not responding to conservative treatment, the sinus should be explored and scraped. In a few cases when, after careful conservative treatment, the removal of a sequestrum, or the scraping of a sinus, the finger still does not heal, we remove the terminal diaphysis. A horse-shoe incision is made down to the bone and, with a narrow gouge, the periosteum is reflected off the anterior and posterior surfaces, the bone cut across

near its base and the flaps sewn back into position, with a strip of rubber placed transversely between them to serve as drainage. This operation produces a soft terminal phalanx which at first appears useless, but within a few weeks after the wound is healed the finger-tip, though short, is firm and useful, and movement is present.

Even after the most careful conservative treatment some chronic infections of the finger will not heal. This is seen most frequently in debilitated or elderly people with arteriosclerosis or diabetes, in whom after several weeks of suppuration there appears a dark discoloration of the skin, followed by moist gangrene. However, by the time gangrene has appeared at the tip, the infection is sure to have spread beyond the terminal joints. The treatment in these cases is early, open amputation.

The spread of the inflammatory process beyond the terminal phalanx usually begins by the infection involving the epiphysis, and escaping from its volar aspect into the small subtendinous space, which accommodates a reflection of the synovial membrane of the joint. The joint is thus involved, and infection spreads from the proximal reflections of the synovial membrane into the dorsal subaponeurotic space and on the palmar surface to the palmar subtendinous space, whence it reaches the second phalanx.

Tuberculous and gummatous ulcerations of the terminal phalanx are very rare, and we shall not describe them.

Infections of the Dorsal Surface.

In spite of their proximity to one another infections of the pulp at their onset are infrequently associated with infections of the dorsum of the finger, although a secondary spread is common. On the dorsum we may meet with suppurative or non-suppurative inflammation of the tissues adjacent to the nail, and according to their anatomical situation the inflammatory lesions receive such names as eponychia, paronychia or subungual abscess. The process is usually caused by small penetrating wounds with splinters, needles and the like.

Clinically they are characterized by pain, which is seldom severe, swelling and redness of the part affected, and there may be a discharge of pus from under the eponychium or paronychium. When subungual infections are present the pain is usually greater, and may be very severe indeed. The extent of the infection is easily seen through the nail.

The treatment is to drain the abscess, and if this requires the removal of the nail enough should be removed to provide adequate drainage for the pus. The operation for removal of the nail is done in a bloodless field if we want to determine the limit of the infection. Care must be taken not to damage the nail matrix. Two incisions are made, leading proximally from the corners of the nail. The eponychium is then pushed back and the nail raised from its bed and removed. If gross damage is done to the nail matrix either by the incision, the rough separation of the nail or by prolonged suppuration, the nail will be permanently deformed. A hot, moist dressing is applied and the arm put in a sling. Next day the finger is washed, the wound dried, and a sterile vaseline dressing applied. Thereafter the finger should be kept dry and radiant heat given. There is usually some pain after the operation, which disappears by the third day, but the hypersensitiveness and tenderness last for about a week or a fortnight. In an uncomplicated case the nail will have grown again in four to six months.

Chronic paronychia is the result of inefficiency in drainage, rest, or dryness of the finger, and is associated with poor health. The inflammation rarely spreads to the palmar surface without also spreading up the finger, but palmar infection not infrequently involves the nail-bed. The treatment is conservative.

Paronychia in newly born babies is not uncommon and, of the cases I have seen, none has been treated by surgery, and none has done anything but resolve rapidly and satisfactorily on conservative treatment.

H. W. RODGERS.

STUDENTS' UNION.

CRICKET CLUB.

Owing to the bad weather the first three 1st XI matches *v.* Southgate, Wanderers and Hampstead had to be scratched.

On Saturday, May 14th *v.* Winchmore Hill C.C., on a very wet wicket we were badly defeated at home. Nunn, Wedd and Capper were not playing. Boney and Hindley both made 24, their captain making a very good 70. Our fielding was bad, a number of matches catches being dropped.

Scores.—Bart.'s, 96; Wichmore Hill, 240 for 6.

On Whit-Monday we played Croydon on their ground. Owing to the weather we started at 3 p.m. and drew stumps at 7.30 p.m. Our opponents batted first and made 154. Our fielding was better, six catches being held. We started slowly and made 100 for 5 wickets with 25 minutes left. We went for the runs and were all out for 139, the last wicket falling in the last over. Hindley 43, Boney 28, Nunn 22.

2nd XI.

Saturday, April 30th: *v.* Southgate, 151 (for 6, dec.); Bart.'s 126 (for 5). Match drawn.

Saturday, May 7th: *v.* Downing College, Cambridge, 105; Bart.'s 152. Match won.

Saturday, May 14th: *v.* Haileybury College. Scratched.

Monday, May 16th: *v.* Wallington. Scratched.

3rd XI.

Wednesday, May 11th: *v.* Enfield Chamber of Commerce. Scratched.

Saturday, May 14th: *v.* Winchmore Hill C.C., 130; Bart.'s 49.

The Annual Past *v.* Present Match will be held on Saturday, June 11th.

Will all old Bart.'s men wishing to play please communicate at once with Dr. Geoffrey Bourne, 47, Queen Anne Street, W. 1?

J. B. B.

TENNIS CLUB.

The first six fixtures had to be scratched because of rain, and so far only two matches have been played.

May 15th: 1st VI *v.* Balliol College. Away.

1. K. A. Latter and J. R. Blackburne beat 1st pair, 7—5, 0—6, 6—4; beat 2nd pair 6—4, 6—2; beat 3rd pair 6—4, 3—6, 6—0.

2. S. P. Mullick and B. Thorne-Thorne lost to 1st pair 4—6, 1—6; lost to 2nd pair 1—6, 6—2, 4—6; beat 3rd pair 7—5, 6—3.

3. T. J. Hardie and A. Hunt lost to 1st pair 2—6, 6—2, 3—6; beat 2nd pair 6—4, 3—6, 6—4; lost to 3rd pair 4—6, 4—6.

Match won 5 sets to 4.

May 18th: 2nd VI *v.* St. Mary's Hospital, at Winchmore Hill.

1. T. J. Hardie and R. K. Frewen beat 1st pair 7—5, 6—4; second set unfinished owing to rain, 9—7, 2—5; beat 3rd pair 6—1, 6—1.

2. R. C. Witt and R. L. Benison lost to 1st pair 4—6, 4—6; beat 2nd pair 6—2, 1—6, 6—2; beat 3rd pair 6—0, 6—0.

3. J. Smart and R. H. Dale lost to 1st pair 3—6, 2—6; lost to 2nd pair 3—6, 2—6; beat 3rd pair 6—2, 6—2.

Match won by 5 sets to 3, the odd one being stopped because of rain.

J. R. K.,
Hon. Sec.

UNITED HOSPITALS SAILING CLUB.

A meeting of the Hospital Sailing Club was held at the beginning of last month. Dr. Dudley Stone took the chair. Unfortunately the attendance was extraordinarily poor, in spite of ample notice.

The season has started well, the Bart.'s dinghey gaining six first places in six races for the Inter-Hospital Trophies.

There is still nearly five months of the summer left, and anyone interested is reminded that the initial subscription of 5*s.* enables them to sail a boat free of charge practically every day until October should they so wish there being no further expense in connection with the boats.

HOCKEY CLUB.

The Annual General Meeting of the above Club was held on Thursday, April 7th. Dr. Gow was in the chair.

The following officers were elected for the ensuing year:

President: Dr. A. E. Gow.
Vice-Presidents: Mr. Just, Dr. Geoffrey Evans.
Captain: G. T. Hindley.
Hon. Sec.: K. W. Martin.
Match Sec.: C. A. Hinds Howell.
Captain 2nd XI: C. Fletcher.
Hon. Sec. 2nd XI: W. A. Oliver.
Captain 3rd XI: T. Smart.
Hon. Sec. 3rd XI: F. Avery-Jones.
Extra Committeemen: P. M. Wright, V. C. Snell.

A. D. I.

FIVES CLUB.

The Fives Club has now completed its first season since the building of the new court, and, judging by the number of men who have been playing fives and the continuous use to which the court has been put, those responsible for its erection may rest assured that their efforts have been greatly appreciated.

The competition which was run during the winter months resulted in a win in the Singles for W. H. Gabb, who defeated G. Oppenheimer in the final by 30 points to 15. Gabb's severity of stroke, accompanied by accurate placing and excellent anticipation, were the deciding factors in his success. Oppenheimer, however, possesses a very sound knowledge of the game, and should improve rapidly.

Partnered by O. A. Savage, Gabb was again successful in the Doubles against J. R. Kingdon and K. F. Stephens. This match was very well contested, and Kingdon made some remarkable recoveries from what appeared to be impossible positions.

The play of many of the competitors augurs well for the future, and it is to be hoped that next season more matches may be arranged, so as to include a greater number of players.

K. A. L.

CORRESPONDENCE.

ON CHRONICS.

To the Editor, 'St. Bartholomew's Hospital Journal.'

DEAR SIR,—Dr. Geoffrey Evans's reply to my short article on "Chronics" which appeared in your last issue raises some interesting points. With great moderation and characteristic restraint, he paints a happy picture of the young doctor so wonderfully trained in St. Bartholomew's Surgery that he passes out into the world spiritually and intellectually equipped to soothe all the sufferings of his fellow men. It is a high ideal, and for it I can feel nothing but the most profound respect—*but*, I do not believe that it is a practical policy. As Dr. Langdon Brown has said, the work in the Surgery affords a unique opportunity of learning to distinguish between "those who are unhappy because they are sick, and those who are sick because they are unhappy," and there can be no doubt that this knowledge is essential in every doctor worthy of the name. Further, it is a platitude to assert that a doctor cannot know too much of human nature. But I do not believe, and nothing will persuade me, that it is essential for the salvation of every junior H.P. to spend four hours a day for six months surrounded by the squalor of Whitechapel.

The lesson that the Surgery has to teach is valuable, but it is *quickly learnt*. The interesting cases are side-tracked to the many special departments of the Hospital, and there are left only chronic bronchitis, chronic arthritis and menopausal complaints.

Years ago Sir Archibald Garrod remarked that the method of procedure in the Surgery was equivalent to "using razors to chop wood." Dr. Geoffrey Evans would believe that this is too high a compliment to our junior H.P.'s; but after all even a junior H.P. is an educated and highly trained man, and the material with which he is presented in the Surgery is something that calls, not for his special knowledge, but for sympathy and common sense.

If it is true that it is the duty of the Hospital to offer help to all who come, then surely it might also help its pupils by appointing a larger number of Casualty H.P.'s to deal with these patients, and by making the appointment of a shorter tenure than three months. In this way many students who go straight and somewhat unprepared from Hospital to general practice would have had a finishing touch put to their education.

But I do *not* believe that St. Bartholomew's exists for the distribution of indiscriminate charity as it did 800 years ago. I believe that it is a high court of medical authority, and that in the greater and more specialized division of labour which marks the passing years it should take its place in the vanguard of medical science. Its Resident Staff, which presumably represent its best students, should have the opportunity of concentrating upon the treatment and cure of organic disease. And if the Church or local G.P.'s fail in their task of comforting the souls of the people, it is a mystery why a scientific institution should take it over.

In conclusion let me emphasize that I do *not* question the part that must be played by the G.P. in private life; I am merely doubtful of the ultimate good that is served by H.P.'s supplying paraffin in large quantities to hordes from the East End, who carry it home and fry their fish in it or put it on their hair.

I am Sir, etc.,

London; H. B.
May 9th, 1932.

To the Editor, 'St. Bartholomew's Hospital Journal.'

DEAR SIR,—Might I put forward a further claim on behalf of the "Bart.'s Chronic," and ask those responsible for their care, in whatsoever Department they are being treated, to remember that they are frequently their own "failures," or the "failure" kindly referred by some other Department?

Is it quite fair to cast them aside, or wish to do so? Where are they to go? To their panel doctor if they have one, to private doctors if their pockets allow. But what of the rest, the many thousands left over? Where are they to go? Why, to Bart.'s, of course, if they belong to Bart.'s, and we must learn to receive them cheerfully just as we smile when our successes turn up.

I am, Sir, etc.,

Dalston; DUDLEY H. COCKELL.
May, 1932.

"ABERNETHY'S" CHAIR.

To the Editor, 'St. Bartholomew's Hospital Journal.'

SIR,—The chair which in my student days (up till 1895) graced the Abernethian Society's room was always called "Abernethy's Chair." I am uncertain whether this chair, where the President sat during ordinary meetings, even as I did, with the orator as the guest on his right hand, is still in this room or where it is. But I am asking if anyone can throw any light on its history. In *The Life of Sir James Paget*, edited by his son Stephen, p. 152, a footnote reads: "It was Mr. Mitchell Henry, M.P., who persuaded the Abernethian Society to buy their grand Presidential chair, with the angels on the top of it; which had originally been designed for a church." Mitchell Henry, a house surgeon, seems to have been in the School in 1845, some years after the foundation of the Society. Is there anywhere a minute of the transaction? Now it will be found in vol. ii, p. 827, of Norman Moore's great book on St. Bartholomew's Hospital that in 1803 "the President used to sit 'in Mr. Pott's old chair.'" Abernethy probably did sit in this chair. What has become of this chair? Is it in the possession of any descendant of Abernethy, or perchance mouldering in a second-hand furniture shop?

In one's student age no one troubles about aught but the approaching examinations, but in antiquity one's thoughts turn very readily to ghosts, and not without pleasure. Hence this.

Yours faithfully,

W. H. MAIDLOW.

REVIEW.

DISEASES OF THE THYROID GLAND. By CECIL A. JOLL, M.S., F.R.C.S. (William Heinemann, Ltd., 1932.) Pp. xviii + 682. With 24 plates and 283 figures. Price £3 3s. net.

The student, as well as the practitioner, will welcome Mr. Joll's book, for not since Mr. (now Sir James) Berry wrote his volume more than thirty years ago, has there been a work published in England covering the whole range of the subject to which he could refer. Individuals have contributed articles, many of them very valuable, but the lack of precise knowledge on some of the problems, and of agreement on others, has hitherto prevented any one individual from publishing a complete volume. Notwithstanding this, great advances have been made. The physiology of the gland is better understood, and the biochemistry has been advanced, and while patients have ceased to be content to suffer the conspicuous deformity associated with the simple types of the disease, or the extreme discomfort and disability associated with the toxic types, surgeons have become skilled in avoiding the dangers of operation, and in perfecting the technique necessary to restore these patients to normal. Many books and a vast literature have been published abroad, and the time was ripe for such a publication in England. Mr. Joll was peculiarly well-equipped to write it, and he has given us a book which contains within its covers practically all that is known about the thyroid gland. The anatomy and physiology are detailed and complete. The biochemistry is particularly informative, and contains full reference to the work of Kendall in isolating, and Harington in synthesizing, thyroxine. The chapter on the parathyroid glandules is good, but it does not contain the work done in the last few years on hyperparathyroidism. The inflammations—including Riedel's disease—are dealt with in a manner much more satisfactory than is usual in text-books, but it must be remembered that all authors do not agree that Riedel's disease and lymphadenoid goitre are separate diseases. Sufficient space is given to developmental abnormalities.

The classification of simple, toxic and malignant goitre has been made commendably simple. As becomes the prevalence and importance of simple goitre, much space has been given to its ætiology, pathology and treatment. These chapters are full of interest. Many of the points are still the subject of keen discussion, and a great deal of work is being carried out on pathogenesis. The student will find a wealth of information on any aspect of it of which he may be in search. The signs, symptoms and complications are excellently described and illustrated.

The classification of malignant epithelial tumours is similar to that used by Allen Graham and Simpson in America, and Dunhill in England.

In the chapters on toxic goitre, Mr. Joll has given, from the department of the Registrar-General, evidence of an increase in the incidence of this disease. He divides it into primary and secondary types, the distinction being whether the toxic condition begins without or with a pre-existing goitre. The subject is dealt with in the greatest detail. The pathogenesis, signs and symptoms are such as we are familiar with. Complications and associated conditions such as cardio-vascular breakdown, glycosuria and mental disturbance are well discussed, as well as its occurrence in early life and its association with pregnancy. The advantage of Mr. Joll's experience in all these circumstances is of great value to the student.

Much space is given to the question of basal metabolism, to anæsthesia, and to the details of operation, including preparation, dangers and after-treatment. In the actual operation Mr. Joll differs in some details from British practice, and follows continental custom in that he ligatures the inferior thyroid artery early, and doubly ligatures and divides practically all vessels.

While giving his own judgments, backed by his lengthy experience, there is an entire absence of dogmatic assertion, and Mr. Joll gives full weight to the views and the work done by investigators and surgeons in this and other countries.

The illustrations are beautifully reproduced and the bibliography is very extended.

RECENT BOOKS AND PAPERS BY ST. BARTHOLOMEW'S MEN.

MAINGOT, RODNEY, F.R.C.S. "Giant Papilloma of the Face." *Proceedings of the Royal Society of Medicine*, February, 1932.

MORLOCK, H. V., *M.C.*, M.D., M.R.C.P. (A. J. SCOTT-PINCHIN, F.R.C.P., and H. V. M.). "Bronchoscopic Apparatus." *Lancet*, March 26th, 1932.

MYERS, BERNARD, C.M.G., M.D. "Gaucher's Disease: Splenectomy." *Proceedings of the Royal Society of Medicine*, February, 1932.

——— "Practical Points on Modern Infant Feeding." *Practitioner*, April, 1932.

OKELL, C. C., *M.C.*, M.B., B.Ch., M.R.C.P. D.T.M.&H. "The *Rôle* of the Hæmolytic Streptococci in Infective Disease: I. Their Modes of Attack." *Lancet*, April 9th, 1932. "II. Properties of the Erythrogenic (Rash-producing) Toxin of the Streptococci." *Lancet*, April 16th, 1932.

PAYNE, REGINALD T., M.B., B.S. F.R.C.S. "Excretion Urography." *British Medical Journal*, April 9th, 1932.

ROLLESTON, Sir HUMPHRY, Bart., G.C.V.O., K.C.B., M.D., F.R.C.P. "British Health Resorts and Spas." *Practitioner*, April, 1932.

ROXBURGH, A. C., M.D., M.R.C.P. "Radon in Dermatology." *Practitioner*, March, 1932.

SHARP, B. BUCKLEY, M.D., B.S.(Lond.), M.R.C.P. "The Clinical Features and Diagnosis of Syphilis in the Nervous System." *Clinical Journal*, April 13th and 20th, 1932.

SHAW, WILFRED, M.A., M.B., B.Ch., F.R.C.S. "Two Specimens of Early Human Ova." *British Medical Journal*, March 5th, 1932.

——— "The Pathology of Ovarian Tumours." *Journal of Obstetrics and Gynæcology of the British Empire*, Spring No., 1932.

WARD, ROY, M.B., B.S. "Carcinoma of the Skin: Its Treatment by Radium." *Practitioner*, March, 1932.

WEBER, F. PARKES, M.D., F.R.C.P. "Erythrodermia with Œdema." *British Journal of Dermatology and Syphilis*, April, 1932.

——— "Erythromelalgia-like Symptoms with High Blood-pressure." *Proceedings of the Royal Society of Medicine*, February, 1932.

——— "Intermittent Claudication in a Woman." *Proceedings of the Royal Society of Medicine*, February, 1932.

——— "Severe Acute Hæmoglobinuria in a Boy." *Proceedings of the Royal Society of Medicine*, March, 1932.

——— "Cutis Verticis Gyrata." *Proceedings of the Royal Society of Medicine*, March, 1932.

——— "Urticaria Pigmentosa (Telangiectatic Variety) in an Adult." *Proceedings of the Royal Society of Medicine*, March, 1932.

——— (and HARRIS, KENNETH E., M.D.). "A Case of Widely-distributed Superficial Telangiectatic Nævus (Capillary Hæmangiectatic Nævus) Associated with Areas of Nævus Anæmicus—Indications that a Portion of the Cerebral Meninges are Similarly Involved." *British Journal of Dermatology and Syphilis*, February, 1932.

——— (and SCHWARZ, E., M.D.). "Thrombophlebitis Migrans vel Recurrens." *Practitioner*, April, 1932.

——— ——— "Erythrodermia with Œdema." *British Journal of Dermatology and Syphilis*, April, 1932.

WOODMAN, E. MUSGRAVE, M.S. "Two Cases of Carcinoma of the Hypopharynx." *Proceedings of the Royal Society of Medicine*, February, 1932.

YOUNG, F. H., O.B.E., M.D., M.R.C.P. "Chronic Non-Tuberculous Infection of the Lungs in Children." *British Medical Journal*, April 2nd, 1932.

EXAMINATIONS, ETC.

University of Cambridge.

The following Degrees have been conferred:

M.Chir.—Taylor, H.

M.B., B.Chir.—Harris, A. G. J.

Royal College of Physicians.

The following have been elected **Fellows:**

Carmichael, E. A., Hadfield, G., Harris, C. F., Haynes, G. S., Okell, C. C., Young, F. H.

The following have been admitted **Members:**

McMenemey, W. H., Price, R. K., Ragab, A. F.

Conjoint Examination Board.

Pre-Medical Examination, April, 1932.

Chemistry.—Berman, B., Friedburg, K. W. S., Goodrich, B. H., Halford, R. B., Henderson, J. L., Perrott, J. W.

Physics.—Berman, B., Friedburg, K. W. S., Goodrich, B. H., Halford, R. B., Perrott, J. W., Witt, R. C.

Biology.—Benson, T. L., Coates, H., Friedburg, K. W. S., Goodrich, B. H., Henderson, J. L., Scott, K. B., Williams, W. R.

First Professional Examination, April, 1932.

Anatomy.—Adel, M., Ball, P. H., Bensley, W. E. C., Curtiss, L. M., deVine, J. G. B., Libertson, W., Nicoll, J. A. V., Philip, D. N., Shemilt, W. P., Williams, R. J. G., Wilson, J. D., Wolfe, H. L.

Physiology.—Adel, M., Ball, P. H., Curtiss, L. M., Knight, W. C., Libertson, W., McAskie, L., Macdonald, J. M., Philip, D. N., Wilson, J. D., Wolfe, H. L.

Materia Medica and Pharmacology.—Barker, J. E., Bressler, D. M., Burstal, E. W., Dias, N. J., De Freitas, A. J. S., Edwards, L. J. L., French, J., Jones, N. H., Lloyd, G. M., Orlek, A., Ross, W. T., Weekes, C. R. H.

Final Examination, April, 1932.

The following have completed the Examination for the Diplomas of **M.R.C.S., L.R.C.P.,** and had the Diplomas conferred on them:

Brookman, G. H., Crabb, D. R., Dexter, L., Evans, W. B., Francis, A. E., Freeman, L., Gilbert, R. G., Groves, J. N., Hall Smith, C. S., Hollinrake, A., Hosford, M. D. C., Jackson, J. M., Knox, R., Kravchick, W., Leishman, A. W. D., McBride, J. R. B., Martin, J. R. M., Mears, A. R. R,, Murless, B. C., Papert, A., Radcliffe, F., Ranganathan, K. S., Roberts, L. O., Saunders, S. B. H., Savage, O. A., Scowen, E. F., Strong, J. R., Tubbs, O. S., Viljoen, D. P., White, H. D., Wilson, W.

L.M.S.S.A.

The Diploma of the Society has been conferred on:

Perkins, R.

CHANGES OF ADDRESS.

DODD, T. A. J. M., 140, Richmond Park Road, Bournemouth.

HOGBEN, G. HAMILTON, "Craigmore," May Road, Swinton, Manchester.

KAYNE, G. GREGORY, St. Charles' Hospital, St. Charles' Square, Ladbroke Grove, W. 10.

LEVITT, W. M., 40, Harley Street, W. 1. (Tel. Langham 1011.) 8, Stone Buildings, Lincoln's Inn, W.C. 2. (Tel. Holborn 4620.)

MORGAN, C. NAUNTON, 40, Harley Street, W. 1. (Tel. Langham 1011.)

RADCLIFFE, W., 7, High Street, Wivenhoe, Colchester.

APPOINTMENT.

SHARP, B. B., M.D., M.R.C.P., appointed Physician to the Princess Beatrice Hospital, Kensington.

BIRTHS.

GARNHAM.—Whitsun, 1932, at Nairobi, to Esther (*née* Long Price), wife of Dr. P. C. C. Garnham—a son.

JOHNSON.—On May 2nd, 1932, to Betty (*née* Coutts), wife of Athol J. Johnson, M.B., B.Ch. (W.A.M.S. Reserve)—a son.

LEHMANN.—On April 25th, 1932, at Lynn House, Wickham Market, to Margaret (*née* Elford), wife of H. P. Lehmann, M.R.C.S., L.R.C.P., —a daughter.

MORTON.—On April 24th, 1932, at Clarendon Lodge, Mitcham Road, London, S.W. 17, to Dorothy (*née* Heddle), wife of John E. C. Morton, M.R.C.S., L.R.C.P.—a son.

NAUNTON MORGAN.—On May 15th, 1932, at 27, Welbeck Street, W. 1, to Ena, wife of Mr. C. Naunton Morgan, F.R.C.S.—a son.

NICHOLSON.—On May 22nd, 1932, at 172, Park-road, West Hartlepool, to Constance Isobel (*née* Murray), wife of Dr. W. A. Nicholson—a son.

NORRISH.—On April 20th, 1932, to Norah (*née* Bennett), wife of R. E. Norrish, F.R.C.S., of 38, Avenue Road, Highgate, N. 6—a daughter.

SHAW.—On May 7th, 1932, at 27, Welbeck Street, to Anne, the wife of Wilfred Shaw, M.D., F.R.C.S.—a son.

TUNBRIDGE.—On May 14th, 1932, at Blythewood, Camberley, to Mildred (*née* Roddy), wife of Dr. W. S. Tunbridge—a son.

WARD.—On April 16th, 1932, to Marjorie (*née* Thomas), wife of Roy Ward—a son.

WARD.—On May 8th, 1932, at 20, Devonshire Place, W. 1, to Elsie Antoinette, wife of Ronald Ogier Ward—a son.

MARRIAGES.

COOK—CAPPER.—On May 23rd, 1932, at St. Bartholomew's Church, Zaria, Nigeria N.P., B.W. Africa, by the Rev. H. Guy Bullen, M.C., M.A., Norman E. Cook, M.B., B.S., D.T.M. & H., of C.M.S. Hospital, Zaria, son of Dr. and Mrs. J. Howard Cook, of 31, Narcissus Road, W. Hampstead, to Clarice Edith Capper, B.A., younger daughter of Mr. and Mrs. W. J. Capper, of Fieldsdene, Newport, Monmouthshire.

MCKINSTRY—HOLMAN.—On May 7th, 1932, at All Souls' Church, Loudoun Road, N.W. 8, by the Vicar, the Rev. S. N. L. Ford, B.A., assisted by the Rev. G. A. T. Jackson, M.A. (formerly Vicar of St. Paul's, Avenue Road, N.W. 8), William Kilbourn McKinstry, M.A.(Camb.), M.R.C.S.(Eng.), L.R.C.P.(Lond.), only son of Dr. and Mrs. McKinstry, of 3, Gwendwr Road, W. 14, to Sibyl Mildred, second daughter of Dr. and Mrs. F. Kay Holman, of 76, Avenue Road, Regent's Park, N.W. 8.

ROCHE—BRIGGS.—On May 7th, 1932, at the Register Office, Kensington, Alex. E. Roche, M.D., M.Ch., F.R.C.S., to Cicely Mary, only daughter of Mr. and Mrs. Briggs, of 21, Wellington Road, Enfield.

STALLARD—PAGE.—On May 21st, 1932, quietly, at St. Bartholomew the Great, London, by the bride's father, H. Bristow Stallard, F.R.C.S., of 35, Harley Street, W. 1, to Gwynneth Constance, daughter of Canon and Mrs. F. G. T. Page, of Warwick.

DEATHS.

BLACKBURN.—On May 11th, 1932, William Howard Blackburn, M.A., M.B., B.Ch., D.P.H., M.R.C.S., M.O.H., son of the late John Blackburn, of Liverpool.

LEGGE.—On May 7th, 1932, at Wintergreen, Warlingham, Sir Thomas Morison Legge, M.D., C.B.E., Medical Adviser to the Trades Union Council, late of the Home Office, aged 69.

WILLETT.—On May 6th, 1932, at a nursing home in London, John Abernethy Willett, M.D., of 11, Bryanston Street, W. 1, second son of the late Alfred Willett, F.R.C.S., aged 59.

WYNTER.—On May 7th, 1932, at Clifton, Bristol, Dr. Andrew Ellis Wynter, son of the late Dr. Andrew Wynter, aged 70.

NOTICE.

All Communications, Articles, Letters, Notices, or Books for review should be forwarded, accompanied by the name of the sender, to the Editor, ST. BARTHOLOMEW'S HOSPITAL JOURNAL, *St. Bartholomew's Hospital, E.C. 1.*

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All Communications, financial or otherwise, relative to Advertisements ONLY should be addressed to ADVERTISEMENT MANAGER, *The Journal Office, St. Bartholomew's Hospital, E.C.1. Telephone: National* 4444.